APT CENTER
TECHNICAL FOUNDATIONS
FOR CLINICAL INNOVATIONS
A VA Research Center of Excellence

APT Center Website Goes Live!

The Advanced Platform Technology (APT) Center is proud to announce the unveiling of its website at http://www.aptcenter.research.va.gov/ .

The website has valuable information on research projects for scientists, clinicians, caregivers, veterans, and others interested in learning about emerging technology applicable to sensory, motor, and limb loss. It also contains an upcoming lecture list, publications, and more information on our scientists, staff and labs.

Research projects include:

o Clinical needs assessment workshop to identify and prioritize the needs of patients with sensory, motor and limb loss in order to focus research using existing or emerging technology.

o A disposable bandage with integrated surface stimulator for the acceleration of chronic wound healing (i.e. the “Integrated Surface Stimulation Device” or ISSD).

o Development of a range of support surface devices using dynamic materials, including wheelchair cushions and mattress overlays that will provide highly cost-effective pressure relief for individuals at increased risk of tissue breakdown.

o Implanted pressure sensors and telemeters utilizing microelectromechanical system (MEMS) technology.

o Implantable micro-miniature myoelectric signal (EMG) telemeters for advanced powered limb prostheses.

o Microfabrication techniques for producing high density electrode arrays out of unique materials for chronic implantation in high resolution neural interfaces.

o New biologically-inspired dynamic materials for cortical probes that can change mechanical properties to match those of the surrounding

tissue to minimize chronic inflammatory response or damage to neural structures.

o Design and manufacturing of nerve-based cuff electrodes for translational research studies.

o A novel hybrid orthosis system consisting of an innovative trunk-hip-knee-ankle-foot orthosis (THKAFO) for walking after paralysis from thoracic spinal cord injury (SCI).

Check back at http://www.aptcenter.research.va.gov/ frequently for updates!